

IN THE SPECIFICATION:

On page 1, above line 1, please insert the following paragraph:

--CROSS REFERENCE TO RELATED APPLICATIONS

Applicants claim priority under 35 U.S.C. §119 of German Application No. 102 40 671.5 filed on September 4, 2002.

Applicants also claim priority under 35 U.S.C. §365 of PCT/DE2003/001895 filed on JUNE 7, 2003. The international application under PCT article 21(2) was not published in English.--

Same page, replace the first paragraph with the following:

--The invention pertains to a knock sensor for an internal combustion engine with an electronically evaluated vibration sensor. ~~The vibration sensor of known knock sensors is realized, for example, in the form of a piezoceramic element. --~~

Same page, between the 1st and 2nd paragraphs insert the following paragraphs:

--The vibration sensor of known knock sensors is realized, for example, in the form of a piezoceramic element. Knock sensors of this type are known, for example, from EP 0 47 22 19 B1, EP 0 844 470 B1 and DE 195 39 919 C2.

US 4,448,059 A discloses a knock sensor for an internal combustion engine with an electronically evaluated vibration sensor in the form of a piezoresistive layer that is rigidly applied onto a surface section of a base body.

DE 199 54 164 discloses sensors for determining state variables, particularly forces exerted by mechanical components, by utilizing amorphous carbon layers with a thickness between 10 nm and 500 μ m. These amorphous carbon layers may consist, in particular, of DLC (Diamond-Like Carbon) layers and have piezoresistive properties. These layers can be applied onto surfaces with different geometries. For example, these layers may be applied by means of a PVD (Physical Vapor Deposition) or CVD (Chemical Vapor Deposition) method. A sensor provided with such carbon layers can be variably utilized and easily adapted to the different requirements of certain applications. A sensor of this type also makes it possible to measure parameters in a reliable and reproducible fashion.

In other respects, DE 19 831 372 discloses washers that are provided with measuring layers and used for controlling non-positive connections.

In a knock sensor of the initially cited type, the invention aims to achieve a simple and reliable acquisition of measuring signals, as well as an equally simple and reliable transmission thereof.

This objective is attained with a knock sensor of the initially cited type that is realized in accordance with the characteristics disclosed in the characterizing portion of Claim 1.

Advantageous and practical embodiments form the objects of the dependent claims. --

Same page, delete the 2nd, 3rd and 4th paragraphs ("Knock sensors...from DE 19 831 372 A1.")

On page 2, delete the 1st paragraph (line 1-6).

Same page, replace the 2nd paragraph with the following rewritten paragraph:

--The invention essentially proposes to eliminate, in comparison with the current state of the art, an additional component that usually consists of the vibration sensor in a knock sensor of this type, namely by directly applying a thin measuring layer onto the surface of a component that not only fulfills the vibration sensor function. ~~It is particularly advantageous to apply~~ According to the invention, the measuring layer is applied onto a tensioning element in the form of the spring washer provided in the knock sensor. The spring washer may be realized, in particular, in such a way that the seismic mass of the knock sensor that is usually braced within the knock sensor by means of a spring washer is an integral part of the spring washer.--

Same page, replace the 3rd paragraph with the following rewritten paragraph:

--In the piezoresistive amorphous carbon layers to be utilized in accordance with the invention, the vibrations of the internal combustion engine cause voltage changes in the layer, ~~for example~~, when said vibrations act upon the spring washer, wherein these voltage changes can be conventionally evaluated. When utilizing a spring washer according to the invention with a

piezoresistive amorphous carbon layer, the deformation of the spring washer is used for generating electrically measurable voltage changes in the layer.--

Same page, delete the 4th (last) paragraph.

On page 3, cancel paragraphs 6 and 7 (lines 19-25) ("Figure 3,...mounting body;")

Same page, paragraph 8 (lines 26-28) change this paragraph to read:

--Figure 53, a knock sensor according to Figure 1 with a spring washer that is tensioned to a defined value by means of a special screw; --

Page 4, change the 1st and 2nd paragraphs to read:

--Figure 64, a knock sensor with a spring washer and a special screw that serves for tensioning the spring washer and can be directly screwed to the internal combustion engine, and

Figure 75, a knock sensor with a seismic mass clamped between two spring washers. --

On page 5, replace the 1st and 2nd paragraphs with the following:

--In the embodiment according to Figure 2, the spring washer ~~is replaced with~~used consists of a washer 7 that ~~may also consist, if so required,~~is practically realized in the form of a flatly clamped spring washer 4.

It would also be conceivable, in principle, to respectively apply a DLC layer 5 onto both sides of the spring washer 4 ~~or the washer, 7, respectively.~~ --

Same page, delete the 3rd, 4th and 5th paragraphs (lines 7 to 20).

Same page, replace the 6th & 7th paragraphs with the following:

--Figure 5 3 shows a knock sensor, in which a special screw ~~11~~ 8 is used for tensioning the spring washer 4. A stop collar ~~12~~ 9 that is integrated into the screw ~~11~~ 8 makes it possible to easily adjust a defined tension of the spring washer 4 with the aid of this special screw.

When utilizing such a special screw ~~11~~ 8, a corresponding screw-on mounting body can be eliminated as shown in Figure ~~6~~ 4.--

On page 6, replace the 1st and 2nd paragraphs with the following:

--In the embodiment according to Figure ~~7~~ 5, a seismic mass 3' is clamped between two spring washers 4, 4'. If still required at all, the seismic mass can be considerably reduced in this embodiment.

All knock sensors shown are provided with a cover housing ~~13~~ 10.--